IN THE CLAIMS:

1. (CURRENTLY AMENDED) A method for managing a construction project compris-
ing:

generating, by one or more central processor units (CPUs) executing an applica-
tion, a computerized simulation model for the construction project representing project
materials in the construction project;

mapping the project materials represented in the computerized simulation model
into constructible elements;

displaying the constructible elements as three-dimensional objects in a graphical
user interface;

determining at least one work step for each constructible element; ~~and~~

~~selecting~~ receiving a selection in the graphical user interface of at least one con-
structible element represented as a three-dimensional object to create a work package in
the computerized simulation model, the work package comprising the at least one con-
structible element and the at least one work step for the at least one constructible element;
and

sequencing a plurality of work packages for release to work crews.

2. (ORIGINAL) The method of claim 1, further comprising organizing the constructible
elements into construction areas in the computerized simulation model.

3. (ORIGINAL) The method of claim 1, further comprising organizing the constructible
elements into construction crafts in the computerized simulation model.

4. (ORIGINAL) The method of claim 1, further comprising organizing the constructible elements into systems for testing and turnover in the computerized simulation model.

5. (ORIGINAL) The method of claim 1, further comprising prioritizing procurement of the constructible elements based on target installation dates of the constructible elements.

6. (ORIGINAL) The method of claim 1, further comprising generating a visual display of the computerized simulation model.

7. (ORIGINAL) The method of claim 1, further comprising generating an interactive three-dimensional graphical display of the computerized simulation model.

8. (CURRENTLY AMENDED) The method of claim 1, wherein <u>receiving a selection of in the graphical user interface of</u> ~~selecting~~ the at least one constructible element further comprises allowing a user to point-and-click on the at least one constructible element in a visual display of the computerized simulation model to select the at least one construct-ible element.

9. (ORIGINAL) The method of claim 8, further comprising providing status information for the work package during creation of the work package.

10. (ORIGINAL) The method of claim 9, wherein providing status information further comprises displaying in a visual display of the computerized simulation model work that has been completed on the construction project.

11. (ORIGINAL) The method of claim 9, wherein providing status information further comprises displaying in a visual display of the computerized simulation model a time estimate for the work package.

12. (ORIGINAL) The method of claim 9, wherein providing status information further comprises displaying in a visual display of the computerized simulation model a cost estimate for the work package.

13. (ORIGINAL) The method of claim 1, wherein the computerized simulation model is an interactive three-dimensional computerized simulation model.

14. (CURRENTLY AMENDED) The method of claim 1, ~~further comprising~~ wherein sequencing a plurality of work packages for release to work crews includes receiving a selection of ~~by selecting~~ the work packages in a visual display of the computerized simulation model via a graphical user interface.

15. (CURRENTLY AMENDED) The method of claim 1, further comprising assigning the work package to a work crew ~~by selecting~~in response to receiving a selection of the work ~~packages~~package in a visual display of the computerized simulation model via a graphical user interface.

16. (ORIGINAL) The method of claim 1, further comprising: accessing engineering data for the construction project in a database, wherein generating a computerized simulation model is based on the engineering data; and accessing manufacturing data for the construction project in an other database, wherein mapping the project materials into constructible elements is based on the manufacturing data.

17. (CURRENTLY AMNEDED) A system for managing a construction project comprising:

a central processor unit (CPU); and

a memory electronically coupled to the CPU, the memory including an application for execution by the CPU, the application comprising

a project design module configured to generate a computerized simulation model of the construction project representing project materials in the construction project,

a mapping module configured to map the project materials represented in the computerized simulation model into constructible elements,

a graphical user interface configured to display the constructible elements as three-dimensional objects;

a task detailing module configured to determine at least one work step for each constructible element, ~~and~~

a work packaging module configured to create a work package in the computerized simulation model, the work package comprising at least one constructible element selected in the graphical user interface and the at least one work step for the at least one constructible element, and

a sequencing module configured sequence a plurality of work packages for release to work crews.

18. (ORIGINAL) The system of claim 17, wherein the project design model comprises a craft organization module configured to organize the constructible elements into construction crafts in the computerized simulation model.

19. (ORIGINAL) The system of claim 17, wherein the project design model comprises a construction area organization module configured to organize the constructible elements into construction areas in the computerized simulation model.

20. (ORIGINAL) The system of claim 17, wherein the project design model comprises a system organization module configured to organize the constructible elements into systems for testing and turnover in the computerized simulation model.

21. (CURRENTLY AMENDED) The system of claim 17, wherein the ~~application further comprises a~~ graphical user interface is further configured to allow a user to point-and-click on the at least one constructible element in a visual display of the computerized simulation model to select the at least one constructible element for the work package.

22. (ORIGINAL) The system of claim 17, wherein the work packaging module is further configured to allow a user to point-and-click on the at least one constructible element in a visual display of the computerized simulation model to select the at least one constructible element for the work package.

23. (PREVIOUSLY PRESENTED) The system of claim 22, wherein the application further comprises a status module configured to provide status information for the construction project in a visual display of the computerized simulation model during creation of the work package.

24. (ORIGINAL) The system of claim 23, wherein the status information comprises a time estimate for the work package.

25. (ORIGINAL) The system of claim 23, wherein the status information comprises a cost estimate for the work package.

26. (PREVIOUSLY PRESENTED) The system of claim 17, wherein the application is configured to generate a visual display of the computerized simulation model.

27. (PREVIOUSLY PRESENTED) The system of claim 17, wherein the application is configured to generate an interactive three-dimensional graphical display of the computerized simulation model.

28. (ORIGINAL) The system of claim 17, wherein the computerized simulation model is an interactive three-dimensional computerized simulation model.

29. (CURRENTLY AMENDED) The system of claim 17, wherein the ~~work packaging module further comprises a~~ sequencing module is further configured to assign a plurality of work packages to work crews ~~and to sequence the plurality of work packages for release to work crews~~.

30. (ORIGINAL) The system of claim 29, wherein the work packaging module further comprises a reprioritization module configured to reprioritize the sequence of the work packages.

31. (ORIGINAL) The system of claim 17, wherein the work packaging module further comprises a constraints analysis module configured to determine whether the work package is valid.

1   32. (ORIGINAL) The system of claim 17, wherein the work packaging module further

2   comprises a verification module configured to analyze resource constraints for the con-

3   struction project to determine whether a work crew can execute the work package subject

4   to the constraints.

1   33. (PREVIOUSLY PRESENTED) The system of claim 17, wherein the work packaging

2   module further comprises a converter module configured to convert data accessed from

3   an external database into a common format for use in a matching module.

1   34. (CURRENTLY AMENDED) A computer readable medium storing computer pro-

2   gram code for managing a construction project, the computer program code when exe-

3   cuted to:

4   generate a computerized simulation model of the construction project, the com-

5   puterized simulation model representing project materials in the construction project;

6   map the project materials represented in the computerized simulation model into

7   constructible elements;

8   display the constructible elements as three-dimensional objects in a graphical user

9   interface;

10   determine at least one work step for each constructible element; and

11   receive a selection in the graphical user interface of select at least one construct-

12   ible element to create a work package in the computerized simulation model, the work

13   package comprising the at least one constructible element and the work steps for the at

14   least one constructible element; and

15   sequence a plurality of work packages for release to work crews.

35. (PREVIOUSLY PRESENTED) The computer readable medium of claim 34, further comprising computer program code to generate a visual display of the computerized simulation model.

36. (PREVIOUSLY PRESENTED) The computer readable medium of claim 34, further comprising computer program code to generate an interactive three-dimensional graphical display of the computerized simulation model.

37. (PREVIOUSLY PRESENTED) The computer readable medium of claim 34, wherein the computerized simulation model is an interactive three-dimensional computerized simulation model.

38. (PREVIOUSLY PRESENTED) The computer readable medium of claim 34, further comprising computer program code to allow a user to point-and-click on the at least one constructible element in a visual display of the computerized simulation model to select the at least one constructible element.

39. (CURRENTLY AMENDED) A system for managing a construction project comprising:

     a central processor unit (CPU);

     means for generating a computerized simulation model of a construction project, the computerized simulation model representing project materials in the construction project;

     means for mapping the project materials represented in the computerized simulation model into at least one constructible element;

9   means for displaying the constructible elements as three-dimensional objects in a

10   graphical user interface;

11   means for determining at least one work step for each constructible element; and

12   means for creating a work package in the computerized simulation model, the

13   work package comprising the at least one constructible element selected in the graphical

14   user interface and the work steps for the at least one constructible element; and

15   means for sequencing a plurality of work packages for release to work crews.

1   40. (ORIGINAL) The system recited in claim 39, further comprising: means for generat-

2   ing a visual display of the computerized simulation model.